

(c) 20 to 90 wt.-% inorganic filler,
each relative to the total mass of the uncured mixture.

4. (Amended) Particulate composite material according to claim 3, wherein the inorganic filler comprises quartz, glass ceramic, glass powder or a mixture thereof.

5. (Amended) Particulate composite material according to claim 4, wherein said glass powder comprises barium glass powder or strontium glass powder.

6. (Amended) Particulate composite material according to claim 4, wherein said quartz, glass ceramic and/or glass powder has an average particle size of 0.4 to 1.5 μm .

7. (Amended) Particulate composite material according to claim 3, wherein said composite contains 10 to 50 wt.-% X-ray-opaque filler.

8. (Amended) Particulate composite material according to claim 7, further comprising ytterbium fluoride.

9. (Amended) Particulate composite material according to claim 3, further comprising precipitated mixed oxides.

10. (Amended) Composition, containing at least one polymerizable monomer and/or prepolymer, at least one polymerization initiator and at least one particulate composite material comprising an average particle size of 20 to 50 μm and containing at most 10 wt.-% particles with a size of $< 10 \mu\text{m}$.

11. (Amended) Composition according to claim 10, comprising

- (i) 10 to 80 wt.-% organic binder;
- (ii) 0.01 to 5 wt.-% polymerization initiator;
- (iii) 20 to 90 wt.-% particulate composite filler,

each relative to the total mass of the composition.

12. (Amended) Composition according to claim 10, further comprising an inorganic filler.

13. (Amended) Composition according to claim 12, wherein said inorganic filler comprises quartz, glass ceramic, glass powder, or a mixture thereof.

14. (Amended) Composition according to claim 13, wherein said glass powder comprises barium glass powder and/or strontium glass powder.

15. (Amended) Composition according to claim 13, wherein said quartz, glass ceramic and/or glass powder has an average particle size of 0.4 to 2 μm .

A 16. (Amended) Composition according to claim 12, comprising 25 to 70 wt.-% quartz, glass ceramic and/or glass powder.

17. (Amended) Composition according to claim 12, further comprising an X-ray-opaque filler.

18. (Amended) Composition according to claim 17, comprising ytterbium fluoride.

19. (Amended) Composition according to claim 17, comprising 1 to 10 wt.-% X-ray-opaque filler.

20. (Amended) Composition according to claim 12, further comprising a layered silicate.

21. (Amended) Composition according to claim 20, comprising 0.05 to 5 wt.-% layered silicate.

22. (Amended) Composition according to claim 10, further comprising precipitated mixed oxide.

23. (Amended) Composition according to claim 22, comprising $\text{SiO}_2/\text{ZrO}_2$ mixed oxide.

24. (Amended) Composition according to claim 22, wherein said mixed oxide has a particle size of 200 to 300 nm.

25. (Amended) Composition according to claim 22, comprising 20 to 70 wt.-% mixed oxide.

26. (Amended) Composition according to claim 10, further comprising 0.01 to 2 wt.-% additives.

27. (Amended) The composition according to claim 10, comprising a tooth-filling material, material for inlays or onlays, tooth cement, facing material for crowns and bridges, or material for false teeth.

28. (New) Particulate composite material according to claim 3, wherein the organic binder is 10 to 30 wt.-%, the polymerization initiator is 0.5 to 2 wt.-%, and the inorganic filler is 60 to 88 wt.-%.

29. (New) Particulate composite material according to claim 6, wherein said average particle size is 0.7 to 1.0 μm .

30. (New) Particulate composite material according to claim 7, wherein said composite contains 20 to 30 wt.-% X-ray-opaque filler.

31. (New) Composition according to claim 16, comprising 30 to 50 wt.-% quartz, glass ceramic and/or glass powder.